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AUTHOR Pezzoli, Jean A.; Ainsworth, Donald
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ABSTRACT

The purposes of this study were to collect feedback from Sustainable Technologies interns regarding the usefulness and effectiveness of their education and training from the Maui Community College Instruction in Sustainable Technologies (MIST) program, and to further assess community need for a new Associate Degree program in Sustainable Technologies. A final sample of 26 MIST interns and second-year students from the School of Architecture at the University of Hawaii-Manoa returned surveys that asked questions about the usefulness of the MIST program. Descriptive statistics regarding respondent characteristics (such as major, number of units completed, and continuing student status) and the helpfulness of MIST and training were used as the primary analyses. Respondents indicated that MIST training was very helpful in training them for a new position, and helpful in training them to better perform a current job. In general, respondents rated the offered financial support as helpful. Respondents also indicated that interns used the training in the home as well as work environments. It is concluded that based on the high level of participant regard and applicability to career and home, that the expansion and continuation of MIST should be supported. (SKF)

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ED 430 594

FOLLOW-UP STUDY:

MCC Instruction in Sustainable Technologies

June 1999

Jean A. Pezzoli, Ph.D.
Don Ainsworth, M.Ed.

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310 Kaahumanu Avenue * Kahului, HI 96732
* phone: (808) 984-3290 * fax: (808) 244-0862
* email: Jean.Pezzoli@MauiCC.Hawaii.Edu

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M I S T
Follow-Up Study

Maui Community College
Spring 1999

TABLE OF CONTENTS

Section I
- Purpose
- Methodology
- Results
- Synopsis

Section II
- Responder Comments

Section III
- Appendix A: Survey Developers
- Appendix B: Questionnaire

FOLLOW-UP STUDY ON INTERNS FROM MAUI COMMUNITY COLLEGE INSTRUCTION IN SUSTAINABLE TECHNOLOGIES

Maui Community College
Spring 1999

PURPOSE

The goal of this follow-up study was to obtain feedback from Sustainable Technologies interns regarding the usefulness and effectiveness of their education and training from the Maui Community College Instruction in Sustainable Technologies (MIST) program. The survey results will help meet the conditions of receiving a federal Department of Energy grant to ascertain how well the innovative Sustainable Technologies curriculum would impact the college and the community. A second purpose of the follow-up study is for the College to further assess community need in Hawaii for a new Associate in Science degree program in Sustainable Technologies.

METHODOLOGY

In the Spring 1999 semester, the team involved with development and review of the MIST program (Appendix A), including the MIST Advisory Committee, MIST Coordinator, and the Assistant Dean of Instruction, under auspices of the Dean of Instruction, developed a follow-up questionnaire (Appendix B).

On April 30, 1999, questionnaires were mailed to all 143 students who had taken a MIST internship. This sample included 103 MCC students enrolled in internships and classes on the main Kahului campus (48) or at one of the outreach Education Centers on Molokai (14), Lanai (19), and Hana (22). Also included in the sample were 40 second-year students from the School of Architecture at the University of Hawaii-Manoa, who had flown to Maui for instruction and to review the College eco-cottage and redraft the improved beta design.

Of the 143 interns, 23 had insufficient addresses in the College's files to be mailed a questionnaire, and three (3) envelops were returned by the post office due to insufficient address; resulting in a sample size of 117 students. The number of respondents was 26 returns, representing a return rate of 22 percent.

A. Respondent Characteristics: Declared Major

Using their replies to Question #1, the 26 respondents were categorized by Major for purposes of this analysis:

- University of Hawaii-Manoa attendees who were majoring in Architecture (4)
- MCC attendees who had not declared a major (11)
- MCC attendees who had declared a major (11). The majors include:

  Building Maintenance (6)
  Electronic and Computer Engineering (3)
  Business/Office Administration (1)
  Liberal Arts (1)

B. Respondent Characteristics: Credits Completed

Question #1 also asked students to indicate how much credit they had completed so far, which is summarized by Table 1-b.

TABLE 1-b
Credits Completed by Respondents

Credits Completed	Majors	Undecided	Arch	Overall
< 10 credits	2	7	--	9
11-19 credits	2	2	--	4
20+ credits	7	1	4	12
Blank	--	1	--	1
Total	11	11	4	26

As seen from Table 1-b, clear differences exist among the three groups as to the amount of progress made toward their education. Of the Undecided students, most have completed 10 credits or less (7, 64%), whereas of those with declared majors most have completed 20 credits or more (Majors = 7, 64%; Arch = 4, 100%).

C. Respondent Characteristics: Continuing Student Status

Question #1 further asked whether respondents are still attending their college, which is reported in Table 1-c.

TABLE 1-c
Continuing Status of Respondents

Status	Majors	Undecided	Arch	Overall N	Overall %
Continuing	9	6	4	19	73%
Non-Cont'g	2	5	--	7	27%
Total	11	11	4	26	100%

Most respondents overall indicated they are continuing students (19, 73%). This result is a positive finding, suggesting desire on the part of many MIST interns to continue with their education.

D. Respondent Characteristics: Discontinuation Reasons

Questions #2 and #3 researched whether one reason for non-continuance is because students had transferred or graduated. This generally is not the case. Of the 7 non-continuing students:

- One Major indicated graduation with a C.A. in Building Maintenance.
- One Undecided student graduated with a credential in Accounting.
- Neither of the above students reported they had transferred.

E. Respondent Characteristics: Work Status

Question #4 asked whether respondents are currently working. Just about all (23, 88%) of the respondents are employed, as seen below in Table 4.

TABLE 4
Work Status of Respondents

Work Status	Majors	Undecided	Arch	Overall N	Overall %
Working	10	10	3	23	88%
Not Working	1	1	1	3	12%
Total	11	11	4	26	100%

Their occupational fields are diversified and include a wide variety of job titles, demonstrating the applicability of the MIST program across many disciplines:

- Majors (with their major recorded in parenthesis):

  Manager -- Tutu's (BLDM)
  Maintenance Engineer -- Grand Wailea Resorts (BLDM)
  Firefighter -- Maui Fire Department (BLDM)
  Groundskeeper -- Electrician -- Maui Community College (BLDM)
  Self-employed -- Painting and Gardening (County employee -- retired) (BLDM)
  Social Worker -- Molokai General Hospital (BLDM -- HSERV)
  Volunteer Training -- Pacific Disaster Center (ECET)
  Intern -- Betac Corporation (ECET)
  UH Ed and Academic Support Specialist -- Maui Community College (BUS/OAT)

- Undecided:

  Self-employed -- Homestead Farmer
  Self-employed -- Farm Manger
  Solar Heater Installer -- Haleakala Solar Inc.

Dinner Cook -- Hotel Hana Maui
Income Auditor -- Hotel Hana Maui
General Manager -- Hasegawa General Store
Chief Bottle Washer -- Hana Appliance
General Manager -- Hikiola Cooperative
IW2 -- Department of Human Services

- Architecture Majors:

Intern/Drafter -- Pacific Asian Design Group
Clerk Typist -- University of Hawaii
Server -- Dixie Grill

F. Helpfulness of Training: Qualifying for New Job

Question #5 asked respondents who had sought new employment to rate how helpful the internship was in qualifying them for the new job or self-employment. The results, which are tabulated in Table 5, are very encouraging.

TABLE 5
Internship Help to Qualifying for Job

Usefulness	Majors	Undecided	Arch	Overall N	* Overall %
Very helpful	10	3	2	15	100%
Somewhat	--	--	--	--	--
Not very helpful	--	--	--	--	--
Not at all helpful	--	--	--	--	--
Not applicable	1	8	2	11	
Total	11	11	4	26	

*Note.-- Percents based on n=15, excluding 11 Non-Applicables.

Of the 15 respondents reporting the item was applicable, all (100%) said that their MIST training was Very Helpful toward qualifying them for the new position. This result attests to the positive impact of the MIST program toward meeting community needs and generating employment potential among its constituents.

While all three groups of respondents certified to the benefits of MIST for gaining employment, of incidental interest is how many Undecideds reported that finding new employment was Not Applicable. As seen in Table 5, of the 11 respondents with majors Undecided, 8 (73%) checked Not Applicable on this item, evidently because the Undecideds had not sought or gained new employment.

G. Helpfulness of MIST: To Better Perform Job

Question #6 queried respondents on how helpful was the internship to performing better in the job or self-employment. These results are also very supportive of the MIST program.

TABLE 6
Internship Helpful to Performing Better on Job

Usefulness	Majors	Undecided	Arch	Overall N	* Overall %
Very helpful	9	4	1	14	82%
Somewhat	1	1	1	3	18%
Not very helpful	--	--	--	--	--
Not at all helpful	--	--	--	--	--
Not applicable	1	6	2	9	
Total	11	11	4	26	

* Note.-- Percents based on n =17, excluding 9 Non-Applicables.

As seen from Table 6, of those 17 for whom the item was applicable, all (100%) judged the internship either Very or Somewhat Helpful toward improving their job performance. And Very Helpful was the rank given by almost all (14, 82%).

H. Helpfulness of MIST: Home Energy Conservation

It was understood that the MIST program might help individuals not only to obtain and perform better on the job, but also to improve the economics of maintaining one's home. Question #7 asked respondents whether they had used any internship practices for energy conservation in the home. The results are tallied in Table 7.

TABLE 7
Internship Improved Home Conservation

Home Use	Majors	Undecided	Arch	Overall N	Overall %
Yes	6	7	--	13	50%
No	5	4	4	13	50%
Total	11	11	4	26	

Responses were split equally between Yes and No. Exactly half of the respondents (13, 50%) recorded that they have applied a Sustainable Technologies principle in their home, while the other half had not as yet implemented a home measure. This result supports the dual purpose of the MIST program -- both to improve energy conservation on the job and in the home.

Both the Major and Undecided groups reportedly use home conservation methods. Yet not unsurprisingly, none of the sophomore Architect students from the UH-Manoa had found use as yet for home conservation measures -- perhaps after they graduate.

I. Usefulness of Financial Support

Some (but not all) participants received financial support in the form of stipends or reduction of tuition, travel, or book costs. Question #8 queried how useful was the financial assistance. These results are shown in Table 8.

TABLE 8
Financial Support Usefulness

Usefulness	Majors	Undecided	Arch	Overall N	* Overall %
Very helpful	8	5	1	14	82%
Somewhat helpful	1	1	--	2	12%
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Not at all helpful	--	--	--	--	--
Not applicable	2	5	2	9	
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Of the 26 respondents, 17 reported the item applicable. Of these, just one respondent gave the financial support a negative rating of Not Very Helpful. The clearly preferred response was Very Helpful, scored by 14 (82%) of the applicables.

J. Comments on How Program has Helped One's Career

Question #9 asked respondents to indicate how, if any, the Sustainable Technologies program has helped their career. As seen from the next section listing the verbatim comments, the responses were positive and diverse, again highlighting the wide applicability of the MIST program.

K. Comments on How Program could be Improved

Question #10 asked respondents to indicate how, if any, the Sustainable Technologies program could be improved. As seen from the section listing the verbatim comments, seven respondents had nothing to add, while the other comments varied considerably, from adding specific content, to bringing in more students, to commending the teacher.

L. Conclusion

These results, showing a high level of participant regard and a wide range of applicability to both career and home, support the continuation and expansion of Maui Community College Instruction in Sustainable Technologies (MIST).

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June 1999

Jean A. Pezzoli, Ph.D.
Don Ainsworth, M.Ed.

University of Hawaii * Maui Community College
310 Kaahumanu Avenue * Kahului, HI 96732
* phone: (808) 984-3290 * fax: (808) 244-0862
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